

SEQUENCE LISTING

<110> OULMOUDEN, AHMAD
JULIEN, RAYMOND
LAFORET, MARIE-PIERRE
LEVEZIEL, HUBERT

<120> USE OF SILVER GENE FOR THE AUTHENTICATION OF
THE RACIAL ORIGIN OF ANIMAL POPULATIONS, AND
OF THE DERIVATIVE PRODUCTS THEREOF

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<140> 10/565,646
<141> 2006-03-24

<150> PCT/FR2004/001952
<151> 2004-07-22

<150> FR/09161
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Ser Cys Pro Ile Gly Glu Ser Lys Pro Leu Leu Ser Gly Gln Gln Val		
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 <213> Bos taurus

<400> 6
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 Pro Glu Trp Thr Glu Ser Gln Gly Pro Asp Cys Trp Arg Gly Gly His
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 Ile Ser Leu Lys Val Ser Asn Asp Gly Pro Thr Leu Ile Gly Ala Asn
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 Ala Ser Phe Ser Ile Ala Leu His Phe Pro Lys Ser Gln Lys Val Leu
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 Pro Asp Gly Gln Val Ile Trp Ala Asn Asn Thr Ile Ile Asn Gly Ser
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 Gln Val Trp Gly Gly Gln Leu Val Tyr Pro Gln Glu Pro Asp Asp Thr
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 Cys Ile Phe Pro Asp Gly Glu Pro Cys Pro Ser Gly Pro Leu Ser Gln
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 Lys Arg Cys Phe Val Tyr Val Trp Lys Thr Trp Asp Gln Tyr Trp Gln
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 Val Leu Gly Gly Pro Val Ser Gly Leu Ser Ile Gly Thr Asp Lys Ala
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 Ser Gln Ser Tyr Val Pro Leu Ala His Ser Ser Ser Ala Phe Thr Ile
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 Asp Gly Arg Asn Lys Arg Phe Leu Arg Lys Gln Pro Leu Thr Phe Ala
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 Leu Gln Leu His Asp Pro Ser Gly Tyr Leu Ala Gly Ala Asp Leu Ser
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 Tyr Thr Trp Asp Phe Gly Asp Ser Thr Gly Thr Leu Ile Ser Arg Ala
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<400> 11

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<211> 2086

<212> DNA

<213> Artificial sequence

<220>

<223> synthetic nucleotide

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<211> 649

<212> PRT

<213> bovine SILVER

<400> 13

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Tyr Pro Glu Trp Thr Glu Ser Gln Gly Pro Asp Cys Trp Arg Gly Gly
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His Ile Ser Leu Lys Val Ser Asn Asp Gly Pro Thr Leu Ile Gly Ala
 65 70 75 80

Asn Ala Ser Phe Ser Ile Ala Leu His Phe Pro Lys Ser Gln Lys Val
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Leu Pro Asp Gly Gln Val Ile Trp Ala Asn Asn Thr Ile Ile Asn Gly
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Ser Gln Val Trp Gly Gly Gln Leu Val Tyr Pro Gln Glu Pro Asp Asp
 115 120 125

Thr Cys Ile Phe Pro Asp Gly Glu Pro Cys Pro Ser Gly Pro Leu Ser
 130 135 140

Gln Lys Arg Cys Phe Val Tyr Val Trp Lys Thr Trp Asp Gln Tyr Trp
 145 150 155 160

Gln Val Leu Gly Gly Pro Val Ser Gly Leu Ser Ile Gly Thr Asp Lys
 165 170 175

Ala Met Leu Gly Thr Tyr Asn Met Glu Val Thr Val Tyr His Arg Arg
 180 185 190

Gly Ser Gln Ser Tyr Val Pro Leu Ala His Ser Ser Ser Ala Phe Thr
 195 200 205

Ile Thr Asp Gln Val Pro Phe Ser Val Ser Val Ser Gln Leu Gln Ala
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 Ser Tyr Thr Trp Asp Phe Gly Asp Ser Thr Gly Thr Leu Ile Ser Arg
 260 265 270
 Ala Leu Thr Val Thr His Thr Tyr Leu Glu Ser Gly Pro Val Thr Ala
 275 280 285
 Gln Val Val Leu Gln Ala Ala Ile Pro Leu Thr Ser Cys Gly Ser Ser
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 Val Ser Thr Pro Glu Pro Ala Gly Ser Asn Thr Ser Ser Phe Met Pro
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 Thr Leu Val Leu Glu Lys Arg Gln Ala Pro Leu Asp Cys Val Leu Tyr
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 Arg Tyr Gly Ser Phe Ser Leu Thr Leu Asp Ile Val Gln Gly Ile Glu
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Glu Leu Thr Val Ser Cys Gln Gly Gly Leu Pro Lys Glu Ala Cys Met
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Asp Ile Ser Ser Pro Gly Cys Gln Leu Pro Ala Gln Arg Leu Cys Gln
515 520 525

Pro Val Pro Pro Ser Pro Ala Cys Gln Leu Val Leu His Gln Val Leu
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Lys Gly Gly Ser Gly Thr Tyr Cys Leu Asn Val Ser Leu Ala Asp Ala
545 550 555 560

Asn Ser Leu Ala Met Val Ser Thr Gln Leu Val Met Pro Gly Gln Glu
565 570 575

Ala Gly Leu Arg Gln Ala Pro Leu Phe Val Gly Ile Leu Leu Val Leu
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Thr Ala Leu Leu Leu Ala Ser Leu Ile Tyr Arg Arg Arg Leu Met Lys
595 600 605

Gln Gly Ser Ala Val Pro Leu Pro Gln Leu Pro His Gly Arg Thr Gln
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Trp Leu Arg Leu Pro Trp Val Phe Arg Ser Cys Pro Ile Gly Glu Ser
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Lys Pro Leu Leu Ser Gly Gln Gln Val
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Tyr Pro Glu Trp Thr Glu Ser Gln Gly Pro Asp Cys Trp Arg Gly Gly
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His Ile Ser Leu Lys Val Ser Asn Asp Gly Pro Thr Leu Ile Gly Ala
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Asn Ala Ser Phe Ser Ile Ala Leu His Phe Pro Lys Ser Gln Lys Val
 85 90 95

Leu Pro Asp Gly Gln Val Ile Trp Ala Asn Asn Thr Ile Ile Asn Gly
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Ser Gln Val Trp Gly Gly Gln Leu Val Tyr Pro Gln Glu Pro Asp Asp
 115 120 125

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 145 150 155 160
 Gln Val Leu Gly Gly Pro Val Ser Gly Leu Ser Ile Gly Thr Asp Lys
 165 170 175
 Ala Met Leu Gly Thr Tyr Asn Met Glu Val Thr Val Tyr His Arg Arg
 180 185 190
 Gly Ser Gln Ser Tyr Val Pro Leu Ala His Ser Ser Ser Ala Phe Thr
 195 200 205
 Ile Thr Asp Gln Val Pro Phe Ser Val Ser Val Ser Gln Leu Gln Ala
 210 215 220
 Leu Asp Gly Arg Asn Lys Arg Phe Leu Arg Lys Gln Pro Leu Thr Phe
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 Ala Leu Gln Leu His Asp Pro Ser Gly Tyr Leu Ala Gly Ala Asp Leu
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 Ser Tyr Thr Trp Asp Phe Gly Asp Ser Thr Gly Thr Leu Ile Ser Arg
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 Ala Leu Thr Val Thr His Thr Tyr Leu Glu Ser Gly Pro Val Thr Ala
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 Gln Val Val Leu Gln Ala Ala Ile Pro Leu Thr Ser Cys Gly Ser Ser
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 Pro Val Pro Gly Thr Thr Asp Arg His Val Thr Thr Ala Glu Ala Pro
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 Gly Thr Thr Ala Gly Gln Val Pro Thr Thr Glu Val Met Gly Thr Thr
 325 330 335
 Pro Gly Gln Val Pro Thr Ala Glu Ala Pro Gly Thr Thr Val Gly Trp
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 Val Pro Thr Thr Glu Asp Val Gly Thr Thr Pro Glu Gln Val Ala Thr
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 420 425 430
 Thr Glu Gly Thr Ala Gly Ser Leu Ser Pro Leu Pro Asp Asp Thr Ala
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 Thr Leu Val Leu Glu Lys Arg Gln Ala Pro Leu Asp Cys Val Leu Tyr
 450 455 460
 Arg Tyr Gly Ser Phe Ser Leu Thr Leu Asp Ile Val Gln Gly Ile Glu
 465 470 475 480
 Ser Ala Glu Ile Leu Gln Ala Val Ser Ser Ser Glu Gly Asp Ala Phe
 485 490 495
 Glu Leu Thr Val Ser Cys Gln Gly Gly Leu Pro Lys Glu Ala Cys Met
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 Asp Ile Ser Ser Pro Gly Cys Gln Leu Pro Ala Gln Arg Leu Cys Gln
 515 520 525
 Pro Val Pro Pro Ser Pro Ala Cys Gln Leu Val Leu His Gln Val Leu
 530 535 540
 Lys Gly Gly Ser Gly Thr Tyr Cys Leu Asn Val Ser Leu Ala Asp Ala
 545 550 555 560
 Asn Ser Leu Ala Met Val Ser Thr Gln Leu Val Met Pro Gly Gln Glu
 565 570 575
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 Thr Ala Leu Leu Leu Ala Ser Leu Ile Tyr Arg Arg Arg Leu Met Lys
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 Gln Gly Ser Ala Val Pro Leu Pro Gln Leu Pro His Gly Arg Thr Gln
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35 40 45

Ala Phe Thr Ile Thr Asp Gln Val Pro Phe Ser Val Ser Val Ser Gln
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Leu Gln Ala Leu Asp Gly Arg Asn Lys Arg Phe Leu Arg Lys Gln Pro
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Leu Thr Phe Ala Leu Gln Leu His Asp Pro Ser Gly Tyr Leu Ala Gly
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Ala Asp Leu Ser Tyr Thr Trp Asp Phe Gly Asp Ser Thr Gly Thr Leu
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Ile Ser Arg Ala Leu Thr Val Thr His Thr Tyr Leu Glu Ser Gly Pro
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Val Thr Ala Gln Val Val Leu Gln Ala Ala Ile Pro Leu Thr Ser Cys
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Gly Ser Ser Pro Val Pro Gly Thr Thr Asp Arg His Val Thr Thr Ala
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Glu Ala Pro Gly Thr Thr Ala Gly Gln Val Pro Thr Thr Glu Val Met
165 170 175

Gly Thr Thr Pro Gly Gln Val Pro Thr Ala Glu Ala Pro Gly Thr Thr
180 185 190

Val Gly Trp Val Pro Thr Thr Glu Asp Val Gly Thr Thr Pro Glu Gln
Page 36

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Thr Gln Trp Leu Arg Leu Pro Trp Val Phe Arg Ser Cys Pro Ile Gly
465 470 475 480

Glu Ser Lys Pro Leu Leu Ser Gly Gln Gln Val
485 490